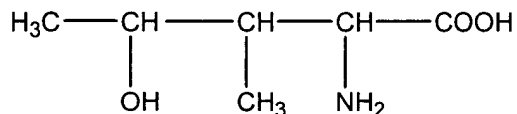


## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of inducing an insulin sensitizing or insulin mimetic effect in a tissue of a patient, the method comprising administering to the patient ~~a compound chosen from the group constituted by mono-hydroxylated amino acids, poly-hydroxylated amino acids, and the lactonic forms of these acids~~ 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.

2. (Currently Amended) The method of claim 1, characterised in that said 4-hydroxyisoleucine and/or lactonic form thereof ~~compound~~ exercises an insulin mimetic and/or insulin-sensitizing effect at the level of a peripheral target tissue of insulin.

3. (Previously Presented) The method of claim 1, characterised in that said 4-hydroxyisoleucine and/or lactonic form thereof ~~compound~~ reduces phosphatase activity associated with the signaling route of the insulin receptor, and/or stimulates PI 3-kinase activity on IRS-1 and/or IRS-2.

4. (Canceled).

5. (Currently Amended) The method of claim 1 4, characterised in that the 4-hydroxyisoleucine is presented in the form of its 2S, 3R, 4S isomer or the corresponding lactone.

6. (Currently Amended) The method of claim 1, wherein the patient has or is at risk of developing insulin resistance.

7. (Previously Presented) The method of claim 1, wherein the patient has or is at risk of developing one or more of the syndromes associated with insulin resistance.

8. (Previously Presented) The method of claim 1, wherein the patient has or is at risk of developing hyperinsulinemia.

9. (Previously Presented) The method of claim 1, wherein the patient has or is at risk of developing insulin resistance associated with ageing.

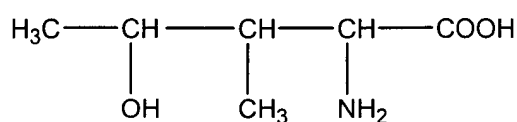
10. (Previously Presented) The method of claim 1, wherein the patient has or is at risk of developing one or more of the illnesses associated with obesity.

11. (Previously Presented) The method of claim 1, wherein the patient has or is at risk of developing cancer.

12. (Currently Amended) The method of claim 1, wherein the patient has or is at risk of developing diabetes ~~insulin resistance~~.

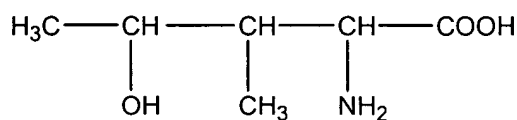
13. (Currently Amended) The method of claim 1, wherein administration of the 4-hydroxyisoleucine and/or lactonic form thereof ~~compound~~ reduces the need of the patient for exogenic insulin.

14. (Currently Amended) Pharmaceutical composition or kit comprising both insulin and ~~a compound chosen from the group constituted by mono-hydroxylated amino acids, poly-hydroxylated amino acids, and the lactonic forms of these acids~~ 4-hydroxyisoleucine of formula



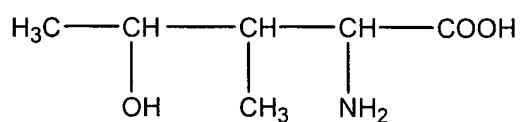
and/or the lactonic form thereof.

15. (New) A method of inducing an insulin sensitizing effect in a tissue of a patient, the method comprising administering to the patient 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.

16. (New) A method of inducing an insulin mimetic effect in a tissue of a patient, the method comprising administering to the patient 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.

17. (New) The method of claim 1, further comprising administering insulin to the patient.

18. (New) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is orally administered to the patient.

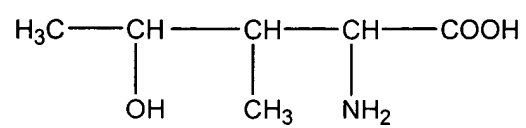
19. (New) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered to the patient two times per day.

20. (New) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered to the patient three times per day.

21. (New) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered in the form of a capsule.

22. (New) The method of claim 1, wherein the 4-hydroxyisoleucine and/or lactonic form thereof is administered in the form of a tablet.

23. (New) A method of treating diabetes by inducing an insulin sensitizing or insulin mimetic effect in a tissue of a patient, the method comprising administering to the patient 4-hydroxyisoleucine of formula



and/or the lactonic form thereof.